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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) 2004P00099WOUS			
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on _____ eFiled Signature _____ Typed or printed name _____	Application Number 10/586,692	Filed 07/09/2008			
	First Named Inventor Dan Neumayer et al.				
	Art Unit 3742	Examiner Ket D. Dang			
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <table style="width: 100%; border: none;"><tr><td style="width: 50%; vertical-align: top; padding: 5px;"><input type="checkbox"/> applicant/inventor. <input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) <input checked="" type="checkbox"/> attorney or agent of record. 39,715 Registration number _____ <input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____</td><td style="width: 50%; vertical-align: top; padding: 5px;"><div style="border-bottom: 1px solid black; margin-bottom: 5px;">/James E. Howard/</div><div style="text-align: right; margin-bottom: 5px;">Signature</div><div style="border-bottom: 1px solid black; margin-bottom: 5px;">James E. Howard</div><div style="text-align: right; margin-bottom: 5px;">Typed or printed name</div><div style="border-bottom: 1px solid black; margin-bottom: 5px;">252-639-7644</div><div style="text-align: right; margin-bottom: 5px;">Telephone number</div><div style="border-bottom: 1px solid black; margin-bottom: 5px;">December 19, 2011</div><div style="text-align: right;">Date</div></td></tr></table> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p>				<input type="checkbox"/> applicant/inventor. <input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) <input checked="" type="checkbox"/> attorney or agent of record. 39,715 Registration number _____ <input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____	<div style="border-bottom: 1px solid black; margin-bottom: 5px;">/James E. Howard/</div> <div style="text-align: right; margin-bottom: 5px;">Signature</div> <div style="border-bottom: 1px solid black; margin-bottom: 5px;">James E. Howard</div> <div style="text-align: right; margin-bottom: 5px;">Typed or printed name</div> <div style="border-bottom: 1px solid black; margin-bottom: 5px;">252-639-7644</div> <div style="text-align: right; margin-bottom: 5px;">Telephone number</div> <div style="border-bottom: 1px solid black; margin-bottom: 5px;">December 19, 2011</div> <div style="text-align: right;">Date</div>
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<input type="checkbox"/> *Total of _____ forms are submitted.					

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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STATEMENT OF ARGUMENTS

Claims 20-42 are pending and finally rejected. The Final Rejection includes the errors that follow:

Error #1: The Term “substantially” is Not Indefinite (claims 20-42).

Claims 20-42 were rejected under 35 U.S.C. §112, second paragraph, based on the inclusion of the word “substantially”. In regard to the use of the term “substantially”, Applicants respectfully traverse the assertion that this term renders the claim indefinite. In particular, see MPEP 2173.05(b) Part D, which provides specific examples employing the use of the term “substantially”. In particular, one Court held that the limitation “which produces substantially equal E and H plane elimination patterns” was definite because one of ordinary skill in the art would know what was meant by “substantially equal”. *Andrew Corp. v. Gabrielle Electronics*, 847 F.2d 819, 6 USPQ 2d 1010 (Fed. Cir. 1988). Further, the term “substantially” is commonly used in patent claims to prevent an infringer from avoiding literal infringement by minor changes, and is universally considered definite within the purview of 35 USC 112. *See NRDC v. Great Lakes Carbon*, 188 USPQ 327, 333, (D. Del. 1975).

Error #2: The Combination of Chen (U.S. Patent No. 6,281,611) in view of Abbott (U.S. Patent Publication No. 2001/0003336) Does Not Teach a casting (claim 20) or that a Coefficient of Thermal Expansion of a Winding Body and an Insulated Casting (claim 20) or Protective layer (claim 23) Substantially Correspond to one Another (ind. claims 20 and 23).

Claim 20 is directed toward a device in which food can be heated by means of inductive coupling. The device includes a winding body, at least one secondary winding formed from a current conductor to which at least one heating element is connected and an insulating casting that mounts the secondary winding in the winding body. The insulating casting has a coefficient of thermal expansion substantially corresponding to that of the winding body. Claim 23 is similar but recites that the protective layer (v. a casting) has a coefficient of thermal expansion which substantially corresponds to that of the winding body.

By substantially matching the coefficients of thermal expansion, as a result of the heat generated during the operation of both devices, the winding body and the casting/protective layer can expand uniformly without mechanical stresses being

formed in the area of the recesses, for example. See par. [0010] of the original specification.

In the Final Office Action, the Examiner fully admits that Chen et al. does not disclose that the coefficient of thermal expansion of the casting substantially corresponds to that of the winding body. In order to make up for this deficiency, the Office Action relies on the teachings of Abbott et al.

First, the Examiner (p. 5 of Office Action) indicates that Chen et al. includes "... an insulated casting that mounts the secondary winding 137 (fig. 2) ...". The Examiner in no way identifies the insulated casting, in contravention to 37 CFR 1.104(c)(2). Accordingly, Applicants are unable to ascertain what the Examiner's possibly unarticulated interpretation of the casting is in Chen et al. As the examiner has not identified the casting, how is it possible to come to the conclusion that it would have been obvious to have matched its coefficient of thermal expansion to that of the winding body?

Moreover, examples of the "casting" described in the specification (p. 5, lines 30-32) include epoxy or polyamide (+ filler), these examples being set forth in claim 32 or 40, whereby the secondary winding is "cast" in the recess (of the winding body). The examiner has pointed to nothing that is remotely similar in Chen et al. Assuming the Examiner considers the casting to be the core 134 ((Fig. 2 - about which the winding 137 is wound), such core 134 is not described and nor does it operate as a casting as claimed and it is further unclear that the core mounts that secondary winding in the winding body. In addition, the core 134 is not described as insulated, and thus is not an insulated casting.

In relation to independent claim 23, the Examiner does not in the first instance identify anything in Chen et al. that amounts to the claimed protective layer. In fact, the examiner does not even mention the "protective layer" in conjunction with Chen et al. There is also no allegation that it would have been obvious to have provided Chen et al. with a protective layer as claimed, although in relation to claim 29 (p. 6) the examiner indicates that Abbott et al. teaches that protective layer has a high material hardness. However, the rejection of claim 23 must fail as the examiner has not acknowledged any difference between Chen et al. and the claimed "protective

layer”, and has not made any allegations that it would have been obvious to have provided Chen et al. with Abbott’s protective layer, i.e., no *prima facie* case established (*Graham* factors not applied).

Second, the examiner cites Chen et al. at col. 8, lines 22-29 for mounting a secondary winding in the winding body. However, the cited disclosure relates to Figure 8 which includes no secondary winding. Moreover, there is no reason to mount any secondary winding in the cavity 256 which is filled with insulating material or air (not a secondary winding). Also, in the body of the rejection, the Examiner cites several elements of Chen et al. that relate to the embodiment of Figures 1 and 2, a completely different embodiment - again, inappropriate for the Examiner to pick and choose various embodiments without considering *Graham* factors.

Third, Abbott et al. deals with deposited resistive coatings and has no apparent connection to the field of inductive cooking as recited in the independent claims of the present application. In particular, paragraph 2 indicates that the invention is directed toward arc plasma spraying which has been used to manufacture millions of alternator parts per year with aluminum oxide. Thus, one of ordinary skill in the art of inductive cooking would have not any reason to look to the teachings of Abbott et al. as it is in a far removed field, in which case one of ordinary skill in the art of induction cooking would not be aware of it. Thus, the examiner’s statement (p. 6) that matching coefficients was known in the art is not on point as “the art” in this particular case deals with an inductive heating device for preparing food. Abbott is not in the same field of endeavor, and does not address the problems that confronted the inventors of the present application (e.g., increase efficiency and prevent scattering losses in a cooking environment).

In this connection, the Panel is requested to consider The Federal Circuit’s very recent *In re Klein*, ___ F.3d ___ (2011) (slip op. 2010-1411) decision, which stands for the basic propositions that (1) the purpose of an invention should not be ignored, and (2) the USPTO cannot redefine in an extremely broad manner the problems addressed by a particular patent application to simply reject the claims.

Fourth, the Examiner has cited to paragraph 44 which in passing indicates that they, i.e., the starting materials, have in general a good coefficient of thermal expansion match with the insulated component. This does not in any form teach or suggest the subject matter of claims 20 or 23, each of which specifies that the insulating casting or protective layer has a coefficient of expansion substantially corresponding to that of the winding body. While paragraph [0044] of Abbott et al. apparently deals with starting materials which have a good coefficient of thermal expansion match with the insulating component, there is no teaching or suggestion of a casting or protective layer which mounts a secondary winding which has a coefficient of thermal expansion substantially corresponding to that of the winding body.

Fifth, the Examiner also cites paragraph [0045] of Abbott et al., but this teaches that the resistive heating layer is a mixture of materials with positive and negative coefficients of resistivity. There is simply no teaching or suggestion that the materials have coefficients of thermal expansion that match one another from paragraph [0045]. If anything, paragraph [0045] seems to imply that the coefficients of thermal expansion are different than one another since the coefficients of resistivity are different from one another.

Error #4: The Combination of Cornec et al. (U.S. Patent No. 5,866,884) in view of Abbott (U.S. Patent Publication No. 2001/0003336 A1) Does Not Teach a casting or that a Coefficient of Thermal Expansion of a Winding Body and an Insulated Casting or Protective layer Substantially Correspond to one Another (ind. claims 21 and 24).

In the Office Action, the Examiner admits that Cornec et al. does not teach that a coefficient of thermal expansion substantially corresponding to that of the winding body, i.e., that the winding body and the protective layer have coefficients of thermal expansion which substantially correspond to one another.

Again, the Examiner relies on the teachings of Abbott et al. to make up for this deficiency. However, Abbott et al.'s teachings do not suggest themselves for combination with induction cooking ranges as the primary application appears to be focused on plasma sprays that have been used to manufacture alternator parts.

Moreover, the passing reference to a good coefficient of thermal expansion match with the insulating component as set forth in paragraph [0044] is simply not

enough of a suggestion to imply that Cornec et al. somehow should be modified by the teachings of Abbott et al. Any such motivation to modify Cornec et al. to include the claimed subject matter is based on impermissible hindsight, which is not the proper foundation to establish a *prima facie* case for rejection.

Further, like Chen et al., Cornec does not disclose a casting that mounts the (primary) winding in the winding body, as elements 2/2a or 6/7 are plates or thermal insulators (sheet of air, paper or wool), not castings that mount the winding in the winding body. Also, the Examiner fails to specifically indicate what he considers to be the “protective layer” of claim 24.

Error #5. The Dependent Claims Were Not Properly Treated.

The Examiner simply has not treated or not fully treated the dependent claims. For example, claim 22 is not treated. Also, the examiner cites C1/L32-33 of Chen et al in relation to claim 26, but this citation only specifies that the background prior art to Chen et al. includes an electric resistance heating element to achieve temperatures of up to several hundred °C, not that a coefficient of thermal expansion of the casting and winding body are matched for a temperature range of 20-150°C.

In relation to claim 25 and 40, Chen et al. does not teach that the winding body consists of or comprises ferrite. The examiner’s citation (C2/L16-17) discloses a lossy ferromagnetic material, and C5/L3-5 discloses iron, nickel, cobalt and various alloys containing same, not consisting of or comprising ferrite. Further regarding claim 40, the examiner does not address whether Chen et al. discloses that the casting includes epoxy resin or polyamide, but paragraph 11 of the Office Action admits that Chen et al. does not disclose epoxy resin. Moreover, Simeray does not disclose an epoxy resin casting that mounts a secondary winding.

Regarding claims 30, 31 and 42, there is simply no reason for one of ordinary skill in the art to start with the teachings of Chen et al.’s inductive cooking apparatus, modify it by using Abbott et al.’s arc plasma spraying for alternator parts, and then to further modify that combination based on Wittdorf et al.’s anti-adhesion coating for welding and/or soldering for use in automobile construction.